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Exploring the value of cooperative learning in enhancing teaching in integrated school environments of the Northern Cape province

Gregory Alexander ^{a*}, Micheal Van Wyk ^b^aUniversity of the Free State, P.O Box 339, Bloemfontein and 9301, South Africa^bUniversity of South Africa, Preller Street, Pretoria and 001, South Africa

Abstract

This paper via a mixed research method explores the value of cooperative learning in enhancing teaching and learning in integrated school environments in the Northern Cape province of South Africa. Furthermore it attempts in determining the views of educators regarding cooperative learning and to identify issues relevant to the learning contexts of learners. Findings of this investigation revealed that educators viewed their lack of understanding the use of cooperative learning as teaching tool as a challenge in enhancing teaching and cultural diversity. Learners alluded to issues with regard to the school curriculum, lesson presentation and interaction as their biggest challenge. This investigation which was conducted as a pilot study and is as such part of the first phase of a funded project by the National Research Foundation of South Africa.

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1. Introduction

Le Roux (1993) posits that a separate fragmented, system dominated by a Christian National Education ideology in South Africa has primarily been responsible for the transmission, interpretation and reproduction of cultural values, norms and heritage of the dominant group (White South Africans). Within the post-apartheid period (1994), the admission and integration of learners from different race - and cultural backgrounds to ex-model C schools (former white schools) became evident. The subsequent consequence of this trend implied that educators, especially white educators are now challenged of teaching black learners in integrated learning environments (Alexander, 2004). Furthermore Meier (2005) and Mpisi (2010) argue that some of the black learners who were integrated into former white schools find it difficult to adjust to the new educational contexts because they seemingly lack the language skills and required background to deal with the curriculum content, medium of instruction and teaching approaches of the Euro-and learner centred predominantly white educator staff component. This state of affairs may result in cultural misunderstandings and the consequent breakdown of educator-learner relations. White educators, representing the majority of the staff complement in Northern Cape schools (Kivedo, 2006), which is apparently also the study demarcation for this study, are seemingly disempowered to deal with educational issues because they apparently lack the teaching skills, the Africanisation of learning content and strategies to facilitate meaningful teaching and learning experiences. As a response to the latter and not shifting the blame to the functioning and operation of these integrated school environments, we argue for the enhancement of conducive teaching contexts

* Gregory Alexander. Tel.: +27-51-401-9490

E-mail address: alexanderg@ufs.ac.za.

via cooperative learning. We further contend that cooperative learning is a culturally sensitive pedagogical and social learning approach that benefits all students and black students in particular (Haynes & Gebreyesus, 1992).

Cooperative learning as a teaching strategy promotes mutual respect and an understanding of learners' individuality. Aspects such as human rights, inclusiveness, and environmental and social justice, as determined by the Constitution of the Republic of South Africa, Act 108 of 1996 (NDE, 2003) are addressed in this manner. Johnson, Johnson and Smith (1998) are of the opinion that cooperative learning is the teaching-learning method for small groups by means of which cooperation amongst learners is facilitated with the aim of improving the learning experience. Sapon-Shevin and Schniedewind (1992) state that cooperative learning can foster educational excellence for all children regardless of class, race or gender, and may even provide learners and educators with the experience and expectation of active participation in controlling and changing the spheres of their lives.

Cooperative learning is a philosophical and practical approach to changing classroom and school organisation, classroom processes and learning activities in order to offer all learners more active learning experiences, equal opportunities, access, and a more social supportive role (Slavin, 1987). Felder and Brent (2001) believe that teachers use cooperative learning as an instrument to involve learners in their own learning, and as a method of promoting social interaction skills amongst learners. Related to the latter Nastasi and Clements (1991) view cooperative learning as a group learning process, built on the belief that students learn better when they learn together.

With the above said in mind, this paper attempts to explore the value of cooperative learning in enhancing teaching in integrated school environments of the Northern Cape province.

2. Method

2.1 Participants

For this exploratory research study, a purposive sampling method was applied to educators drawn from a population of 200 high school teachers. A total of 148 educators from 10 integrated schools completed the questionnaires on the use of cooperative learning as teaching tool. Pertaining to ascertaining the views of learners regarding their teaching situation in integrated schooling contexts, 100 black learners participated in 10 focus groups interviews.

2.2 Instruments

A self-structured questionnaire, devised on the basis of an extensive study of the relevant literature, was distributed to 200 high teachers. A total of 148 of the 200 in integrated school contexts of the Northern Cape province, completed the questionnaires. The questionnaire was based on a 4-point Likert scale aimed at determining the perceptions of white educators regarding the use of cooperative learning as a teaching tool. A total of 10 focus groups, consisting of 10 learners per grouping were conducted. Semi-structured interview questions were used during sessions. For analyzing the qualitative data from the semi-structured interviews, the textual analysis approach according to Leedy and Ormrod (2001) was used to uncover the thematic aspects of the situation and the learner participants' views and experiences regarding the teaching situation at their respective schools.

2.3 Procedure

The relevant education authorities and participants were informed about the aim of the study. These parties gave formal consent prior to the commencement of the study. Educator participants completed the questionnaires while all 100 learners participated in the focus group interview sessions.

2.4 Statistical analysis

For the questionnaires, data analysis was executed in descriptive form using the Statistical Package for the Social Sciences. The overall reliability Cronbach alpha coefficient for this questionnaire was (0.9061).

3. Results

In terms of section A of the questionnaire (Biographical information) 41.2% of the educator participants were male, while 58.8% were female. Regarding teaching experience, 69% of educators have less than 10 years, 38.6% have between 11-20 years teaching and 9.5% educators have between 21-30 years. A total of 83.1% of educators has a professional teaching qualification.

The results for section B (White educators perceptions regarding the use of cooperative learning as a teaching tool) of the questionnaire have been presented in the following tables 1 and 2.

Table 1. Achievement of cooperative learning (CL) outcomes via cooperative learning activities (n = 148)

Items	χ^2 value	p-value	Not at all		Small extent		Large extent		Very large extent
			n / %	n / %	n / %	n / %	n / %	n / %	
1. Improving learner performance	2.181	0.902	1 0.7	11 7.4	41 27.7	95 64.2			
2. Enhancing intergroup relationships	3.905	0.866	2 1.4	13 8.8	46 31.1	87 58.8			
3. Encouraging positive interaction amongst learners of all racial groups	3.683	0.945	2 1.4	10 6.8	37 25.0	99 66.9			
4. Instilling individual responsibilities	7.756	0.758	1 0.7	18 12.2	40 27.0	89 60.1			
5. Supporting face to face interaction	3.687	0.719	1 0.7	8 5.4	50 33.8	89 60.1			
6. Encouraging social and small group skills	1.520	0.823	0 0.0	14 9.5	48 32.4	86 58.1			
7. Teaching about diversity and human rights	3.685	0.815	2 1.3	16 10.8	47 31.7	83 56.0			
8. Attempting critical pedagogical approaches	6.315	0.889	1 0.7	8 5.4	48 32.4	91 61.5			
9. Infusing issues of social justice in lessons	2.258	0.689	5 3.3	13 8.7	53 35.8	77 52.1			
10. Promoting different learning styles	3.634	0.728	4 2.7	23 15.5	39 26.3	82 55.4			
11. Using various cooperative learning methods	3.783	0.789	3 2.0	18 12.1	43 29.1	84 56.7			

In table 1, the significance of the p-values for all cooperative learning outcomes is greater than 0.5 meaning the extent to which cooperative learning outcomes can be achieved by the implementation of cooperative learning activities in integrated school environments, is not statistically significant for this question. The majority of participants indicated that improving learner performance (64.2%), enhancing intergroup relationships (58.8%), encouraging positive interaction (66.9%), instilling individual responsibilities (60.1%), supporting face to face interaction (60.1%), encouraging social and small group skills (58.1%), teaching about diversity and human rights (56.0%), attempting critical pedagogical approaches (61.5%), infusing issues of social justice in lessons (52.1%), promoting different learning styles (55.4%) and using various cooperative learning methods (56.7%) can to a very large extent achieve the cooperative activities for effective teaching in integrated learning environments.

Table 2. Experience in cooperative learning (CL) for the enhance

Items	χ^2 value	p-value	Not at all		Small extent		Large extent		Very large extent
			n / %	n / %	n / %	n / %	n / %	n / %	
1. Discussed cooperative learning with other colleague and tried some of the ideas	0.6457	0.374	66 44.6	40 27.0	34 23.0	8 5.4			
2. Participated in after school in-service workshop on cooperative learning	12.809	0.012	25 16.3	28 18.9	56 37.8	39 26.4			
3. Participated in seminar day of the district	3.416	0.878	21 14.2	30 20.3	58 39.2	39 26.4			

4. Took a credit bearing course in higher education on cooperative learning	5.373	0.017	40	27.0	32	21.6	37	25.0	39	26.4
5. Attended a NGO workshop on cooperative learning	5.489	0.704	42	28.4	45	30.4	31	20.9	0	20.4
6. Read academic article on cooperative learning	4.111	0.002	63	40.8	37	25.0	34	23.0	14	10.2

In table 2, the significance of the p-value for “participated in an after-school in-service workshop” (0.012>0.05), “took a credit learning course” (0.017>0.05) and “read an article on Cooperative learning” (0.002>0.5) are statistically significant because these educators in Cooperative learning will enhance their teaching in integrated school environments. Participants also indicated that to a large extent they had participated in an after-school in-service workshop on cooperative learning (37.8%) and in an educational district educators’ seminar day (39.2%), while to a very small extent they had attended a NGO workshop on cooperative learning (30.4%). Furthermore, 44.6% of participants indicated that they had never discussed cooperative learning with other teachers or tried some of the ideas in the classroom, while 40.8% had never read an article on cooperative learning and 27% had not taken any credit bearing course at the level of higher learning.

In terms of the focus group interviews, 52 % of the learner participants were male while 48 % were female. All these learners selected for the focus groups were black- the aim of this study was particularly also to gather their views regarding issues during the teaching situation. Below find a synthesis of the most important issues emanating from the focus group interviews.

Table 3. Views of learner participants regarding the teaching situation (n = 100)

QUESTIONS DIRECTED TO FOCUS GROUPS	YES / NO	THEMES EMANATING FROM RESPONSES
1. Did you have expectations of the school you attending ?	82 / 18	High academic standard / Obtaining good results
2. Do racial incidents often occur at your school ?	56 / 44	Negative perceptions & stereotyping
3. Do you think that the enrollment of black learners in former white schools led to a drop in standards?	17 / 83	Difficulty in communication & understanding
4. Are black learners more withdrawn than white learners during class activities?	67/33	Limited interaction on social and emotional level
5. Do educators use experiences of learners during lesson presentation ?	21/79	Unawareness of life experiences & world view
6. Are your need for belonging met by your school ?	23/77	Eurocentric school culture- referrals to ‘us’ and ‘them’
7. Do white educators’ teaching styles make provision for you to understand the content better ?	12/88	Teacher orientated and examination driven
7. Are opportunities created by educators for you to learn from your fellow peers ?	31/69	Limited opportunities for group work activities/interactive learning
8. Do you think that white educators in former white schools are more committed than those teaching in townships and black residential area?	63/37	Good pass rates and high grades

*Relating to each question, participants were requested to explain, motivate, provide clarity, elaborate on responses and even provide examples in some cases

*White colleague with Ph. D of my faculty was requested to act as moderator

Questions where the majority of learner participants indicated a level of acknowledge and agreement (YES responses) were: expectations of school attending (82%); racial incidents occurring at school (56%); black learners being more withdrawn than white learners during class activities (67 %) and white educators being more committed (63%). Questions where the majority of learner participants indicated a level of disagreement (NO responses) were: enrollment of black learners led to drop in standards (83%); educators use experiences of learners during lesson presentation (79%); need for belonging met at school (77%); white educators teaching style assist you in understanding content better (88%); opportunities created for you to learn from peers (69%). The main

themes emanating from the responses (table 3) gives an indication of key issues that came forth from the learner responses.

4. Discussion

According to the results of the biographical section, 69 % of educators have less than 9 years experience. According to Alexander (2004) and Mpisi (2010) inexperienced staff component doesn't associate easily with issues related to cultural diversity and may therefore find it difficult to teach integrated school environment. Furthermore 38.6% of educators have between 11-20 years experience. Most of these educators were trained in racially segregated training institutions, during the apartheid period. Additionally, these educators may find it extremely difficult to change their fixed and ingrained ways of teaching (Van Wyk, 2008; Kivedo, 2006). Oakley, Felder and Elhadj (2004) are of the opinion that cooperative learning can be viewed as a tool in enhancing teaching in integrated school environments. In these environments, learners should be provided with opportunities to discover, construct knowledge, and develop new talents and skills. Teaching-learning interactions amongst learners and between learners and educators may be optimised in this way (Millis, 2001). Cooperative learning as a crucial teaching strategy can be applied successfully by both experienced and novice teachers as a means of developing higher-order thought processes and equipping learners for the challenges of integrated school environments and society at large.

References

- Alexander, G. (2004). The design and evaluation of a staff development programme for amalgamated schools in The Northern Cape. Unpublished Ph. D Thesis. Bloemfontein. University of the Free State.
- Felder, R. M., & Brent, R. (2001). Effective strategies for cooperative learning. *Journal of Cooperation and Collaboration in College Teaching* 10(2), 69-75.
- Haynes, N.M., & Gebreyesus, S.(1992). Cooperative learning: A case for African-American students. *School Psychology Review* 21(4),577-585.
- Johnson., D.W., Johnson, R.T., & Smith., K.A.(1998). Making cooperative learning work. *Theory into Practice* 38(2), 6-72.
- Kivedo, C. (2006). A Psycho-educational investigation into the state of multicultural education and the design of a multicultural education framework for Northern Cape schools. Unpublished Ph. D Thesis. Bloemfontein. University of the Free State.
- Leedy, P.D., & Ormrod, J.E. (2001). Practical Research. Planning and Design, 7th Edition. New Jersey: Merrill Prentice Hall.
- Le Roux., J. (1997). *Multicultural education: what every teacher should know*. Pretoria: Kagiso
- Meier, C. (2005). Addressing problems in integrated schools: learner's teachers' perceptions regarding viable solutions for learners' academic problems. *South African Journal of Education* 25(3), 170 – 177.
- Millis, J. (2001). Cooperative learning: It's here to stay. *Essays on Teaching Excellence* 12(8)1-4.
- Mpisi, A. (2010). The scholastic experience of black learners in multicultural FET schools in the Northern Cape. Unpublished Ph. D Thesis. Bloemfontein. University of the Free State.
- Nastasi., B.K & Clements., D.H. (1991). *Research on cooperative learning: Students read and write?* Illinois: Urbana.
- National Department of Education (NDE). (2003). Constitution of South Africa. Pretoria: Government Printers.
- Oakley, B., Felder, R.M., Brent, R. & Elhadj, I. (2004). Turning student groups into effective teams. *Journal of Student-Centred Learning* 2(1), 9- 34.
- Slavin, R.E.(1987).. Cooperative learning: Can students help students learn? *Instructor* 96(7), 74-76.
- Van Wyk, M.M. (2008). The use of cooperative learning in economics in the further education and training phase in the Free State Province. Unpublished Ph. D Thesis. Bloemfontein. University of the Free State.